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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,550	09/05/2006	Guy Raebler	ICB0272	7206
113 7590 04/21/2008 GRIFFIN BUTLER WHISENHUNT & SZIPL LLP SUITE PH-1 2300 NINTH STREET SOUTH ARLINGTON, VA 222042396			EXAMINER KAYES, SEAN PHILLIP	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/598,550

Applicant(s)

RAEBER ET AL.

Examiner

SEAN KAYES

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 February 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23, 25 and 27-43 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 23, 25 and 27-43 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 07 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 23, 25, and 27-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plancon (US 7113450) in view of Germinquet (US 2004/0047242.)
3. With respect to claim 23 Plancon discloses a watch including:
 - (a) a case (10 figure 1) containing a watch movement on which a dial is mounted, the watch movement including
 - o electronic circuits (figures 3-5) able to generate time signals to be sent to motor means (MD1-4 figure 4) controlling at least
 - o two analogue display members (18-26 figure 1), wherein the analogue display members are arranged above the dial (30 figure 1) to display current time in a time mode which is a first operating mode (column 5 lines 40-67 discuss wherein the watch operates in two modes and column 7 lines 7-10 state that the watch has standard minute, hour, and second hands for indicating time information); and the watch further including
 - (b) a sensor (column 3 lines 10-16 and 120a-c figure 5) for a physical magnitude, for periodic acquisition of value of the physical magnitude as a function of time in a second operating mode (column 5 lines 40-67 discuss wherein the watch

operates in two modes), wherein the sensor (120a-c figures 4-5) is connected to means (100-101 figure 1) for processing values capable of generating electric signals to storage means (102 and 104 figure 4) provided for storing values, wherein the watch has

- a historic mode which is a third operating mode (column 22 lines 26-36 discusses displaying stored information according to time) in which the processing means are arranged for generating control signals to be sent to the motor means for a display representative of stored values of the physical magnitude as a function of time so that at least a first analogue display member of the at least two analogue display members indicates, opposite suitable graduations of the watch, the value of a variable the change in which is linked to physical magnitude value, on condition that the variable does not give any indication relating to the time remaining before a decompression stop has to be made or any indication relating to a minimum depth not to be exceeded by a person wearing the electronic watch when coming up from a dive,
- when a second analogue display member of the at least two analogue display members is made to indicate information relating to a depth (column 23 lines 8-22 states wherein at least one additional measured value is depth in a multipurpose embodiment.)

Plancon does not explicitly states wherein first and second analogue display members display both time information in a time mode and physical magnitude information in another mode.

Germinquet teaches using the same analog hands to display current time information and physical information.

At the time of the invention it would have been obvious to one skilled in the art to configure Plancon's current time hands to display diving information according to operating mode. The reason for doing so would be to provide a larger display so as to achieve an improvement in the visibility/readability of the physical information display, as taught by Germinquet. Another reason for doing so would have been to achieve a simplified design and reduced complexity. Another reason for doing so would have been to leave the additional scales unused for displaying other information simultaneously with the dive/time information, such as heart rate information (figure 9b.)

4. With respect to claim 25 Plancon and Germinquet teach the watch according to claim 23, wherein in said historic mode (column 22 lines 26-36) said processing means (101 figure 4) are further arranged for generating signals to be sent to said motor means (Md1-Md4 figure 1) so that said at least two analogue display members remain superposed (Figure 9a depicts the regular time display hands superposed over the historic sensor display, 22 figure 9a.)

5. With respect to claim 27 Plancon discloses

- (a) a case (10 figure 1) containing a watch movement on which a dial is mounted, the watch movement including

- electronic circuits (figures 3-5) able to generate time signals to be sent to motor means (MD1-4 figure 4) controlling at least
- two analogue display members (18-26 figure 1), wherein the analogue display members are arranged above the dial (30 figure 1) to display current time in a time mode which is a first operating mode (column 5 lines 40-67 discuss wherein the watch operates in two modes and column 7 lines 7-10 state that the watch has standard minute, hour, and second hands for indicating time information); and the watch further including
- (b) a sensor (column 3 lines 10-16 and 120a-c figure 5) for a physical magnitude, for periodic acquisition of value of the physical magnitude as a function of time in a second operating mode (column 5 lines 40-67 discuss wherein the watch operates in two modes), wherein the sensor (120a-c figures 4-5) is connected to means (100-101 figure 1) for processing values capable of generating electric signals to storage means (102 and 104 figure 4) provided for storing values, wherein the watch has
- a historic mode which is a third operating mode (column 22 lines 26-36 discusses displaying stored information according to time) in which the processing means are arranged for generating control signals to be sent to the motor means for a display representative of stored values of the physical magnitude as a function of time so that at least a first analogue display member of the at least two analogue display members indicates, opposite suitable graduations of the watch, the value of a variable the change in which is linked to physical magnitude value, on

condition that the variable does not give any indication relating to the time remaining before a decompression stop has to be made or any indication relating to a minimum depth not to be exceeded by a person wearing the electronic watch when coming up from a dive,

- when a second analogue display member of the at least two analogue display members is made to indicate information relating to a depth (column 23 lines 8-22 states wherein at least one additional measured value is depth in a multipurpose embodiment), and
- wherein in said historic mode (column 22 lines 26-36), said processing means (101 figure 4) are further arranged for generating signals to be sent to said motor means so that at a given instant the second analogue display member indicates elapsed time (hand 24 displays the time information lines 35-36 column 22) since the start of acquisition of value of physical magnitude (lines 31-35 column 22) as a function of time, whereas said first analogue display member indicates value of said variable at said instant.

Plancon does not explicitly states wherein first and second analogue display members display both time information in a time mode and physical magnitude information in another mode.

Germinquet teaches using the same analog hands to display current time information and physical information.

At the time of the invention it would have been obvious to one skilled in the art to configure Plancon's current time hands to display diving information according to

operating mode. The reason for doing so would be to provide a larger display so as to achieve an improvement in the visibility/readability of the physical information display, as taught by Germinquet. Another reason for doing so would have been to achieve a simplified design and reduced complexity. Another reason for doing so would have been to leave the additional scales unused for displaying other information simultaneously with the dive/time information, such as heart rate information (figure 9b.)

6. With respect to claim 28 Plancon discloses the device
 - (a) a case (10 figure 1) containing a watch movement on which a dial is mounted, the watch movement including
 - o electronic circuits (figures 3-5) able to generate time signals to be sent to motor means (MD1-4 figure 4) controlling at least
 - o two analogue display members (18-26 figure 1), wherein the analogue display members are arranged above the dial (30 figure 1) to display current time in a time mode which is a first operating mode (column 5 lines 40-67 discuss wherein the watch operates in two modes and column 7 lines 7-10 state that the watch has standard minute, hour, and second hands for indicating time information); and the watch further including
 - (b) a sensor (column 3 lines 10-16 and 120a-c figure 5) for a physical magnitude, for periodic acquisition of value of the physical magnitude as a function of time in a second operating mode (column 5 lines 40-67 discuss wherein the watch operates in two modes), wherein the sensor (120a-c figures 4-5) is connected to

means (100-101 figure 1) for processing values capable of generating electric signals to storage means (102 and 104 figure 4) provided for storing values, wherein the watch has

- a historic mode which is a third operating mode (column 22 lines 26-36 discusses displaying stored information according to time) in which the processing means are arranged for generating control signals to be sent to the motor means for a display representative of stored values of the physical magnitude as a function of time so that at least a first analogue display member of the at least two analogue display members indicates, opposite suitable graduations of the watch, the value of a variable the change in which is linked to physical magnitude value, on condition that the variable does not give any indication relating to the time remaining before a decompression stop has to be made or any indication relating to a minimum depth not to be exceeded by a person wearing the electronic watch when coming up from a dive,
- when a second analogue display member of the at least two analogue display members is made to indicate information relating to a depth (column 23 lines 8-22 states wherein at least one additional measured value is depth in a multipurpose embodiment.), and
- wherein the device includes additional means for calculating value (column 22 lines 26-36) of a second variable from said measured value of physical magnitude, wherein said processing means is arranged for generating signals to be sent to said motor means so that the second analogue display member

indicates at each instant, in said historic mode, the value of said second variable corresponding to the value of said variable displayed by said first analogue display member (in the embodiment discussed in lines 26-36 of column 22 blood pressure and/or respiration correspond to the first analogue display value of heart rate.)

Plancon does not explicitly states wherein first and second analogue display members display both time information in a time mode and physical magnitude information in another mode.

Germinquet teaches using the same analog hands to display current time information and physical information.

At the time of the invention it would have been obvious to one skilled in the art to configure Plancon's current time hands to display diving information according to operating mode. The reason for doing so would be to provide a larger display so as to achieve an improvement in the visibility/readability of the physical information display, as taught by Germinquet. Another reason for doing so would have been to achieve a simplified design and reduced complexity. Another reason for doing so would have been to leave the additional scales unused for displaying other information simultaneously with the dive/time information, such as heart rate information (figure 9b.)

7. With respect to claim 29 Plancon and Germinquet teach the watch according to claim 23, wherein said sensor is a magnetic field sensor (the embodiment of figure 11 teaches a magnetic sensor; column 18 line 64 through column 19 line 6), wherein in

said historic mode, said processing means are arranged for generating signals to be sent to said motor means so that said at least two analogue display members are aligned so as to indicate magnetic north (When the device is oriented in the North direction the two analog hand are aligned, figure 11.)

Plancon does not explicitly states wherein first and second analogue display members display both time information in a time mode and physical magnitude information in another mode.

Germinquet teaches using the same analog hands to display current time information and physical information.

At the time of the invention it would have been obvious to one skilled in the art to configure Plancon's current time hands to display diving information according to operating mode. The reason for doing so would be to provide a larger display so as to achieve an improvement in the visibility/readability of the physical information display, as taught by Germinquet. Another reason for doing so would have been to achieve a simplified design and reduced complexity. Another reason for doing so would have been to leave the additional scales unused for displaying other information simultaneously with the dive/time information, such as heart rate information (figure 9b.)

8. With respect to claim 30 Plancon and Germinquet teach the watch according to claim 23, wherein said sensor is an ambient pressure sensor (column 23 lines 8-22.)

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9. With respect to claim 31 Plancon and Germinquet teach the watch according to claim 30, wherein said first analogue display member indicates a measured depth (column 23 lines 8-22.)

10. With respect to claim 33 Plancon and Germinquet teach the watch according to claim 30, wherein said first analogue display member indicates a measured altitude (figure 10.)

11. With respect to claim 34 Plancon and Germinquet teach the watch according to claim 33, wherein said second analogue display member (depicted in figure 10) indicates an altitude difference value (the indicated altitude value is the altitude different between the measured altitude and sea level. Additionally column 22 line 66 through column 23 line 3 discusses setting the altitude relative to a user set reference point.)

12. With respect to claim 35 Plancon and Germinquet teach the watch according to claim 30, wherein said first analogue display member indicates a substantially instantaneous altitude variation speed (the speed is at least depicted by the rate of change of the altitude indicator.)

13. With respect to claim 36 Plancon and Germinquet teach the watch according to claim 35, wherein additional means are provided for generating signals to be sent to said control means so that said second analogue display member further indicates, in

said historic mode and at a given instant, a mean altitude variation speed calculated over a predefined period of time preceding said given instant (the embodiment of figure 10 indicates altitude information. Column 12 lines 15-27 discuss wherein the measured value is measured periodically and the subsequent calculation.)

14. With respect to claim 37 Plancon and Germinquet teach the watch according to claim 23, wherein the watch includes a temperature sensor (figure 10 depicts indication of measured temperature) for measuring a physical magnitude representative of ambient temperature, said electronic circuits being capable of storing measurements of said temperature sensor (column 15 lines 3-12 discuss replacing or supplementing the heart rate measurement with a temperature measurement) to generate electric signals to be sent to said motor means so that one of said at least two analogue display members indicates temperature value in said historic mode (column 22 lines 26-36.) Plancon does not explicitly states wherein first and second analogue display members display both time information in a time mode and physical magnitude information in another mode.

Germinquet teaches using the same analog hands to display current time information and physical information.

At the time of the invention it would have been obvious to one skilled in the art to configure Plancon's current time hands to display diving information according to operating mode. The reason for doing so would be to provide a larger display so as to achieve an improvement in the visibility/readability of the physical information display,

as taught by Germinquet. Another reason for doing so would have been to achieve a simplified design and reduced complexity. Another reason for doing so would have been to leave the additional scales unused for displaying other information simultaneously with the dive/time information, such as heart rate information (figure 9b.)

15. With respect to claim 38 Plancon and Germinquet teach the watch according to claim 23, wherein in said second operating mode, said processing means (101 figure 4) are arranged for generating signals to be sent to said motor means (MD1-MD4) so that, during the course of said acquisition of the value of the physical magnitude, the display of the device is identical to the current time displayed by the at least two analogue members in the time mode (the operation of the device in time mode and the second mode does not change the appearance of the hands and/or dial.)

Plancon does not explicitly states wherein first and second analogue display members display both time information in a time mode and physical magnitude information in another mode.

Germinquet teaches using the same analog hands to display current time information and physical information.

At the time of the invention it would have been obvious to one skilled in the art to configure Plancon's current time hands to display diving information according to operating mode. The reason for doing so would be to provide a larger display so as to achieve an improvement in the visibility/readability of the physical information display, as taught by Germinquet. Another reason for doing so would have been to achieve a

simplified design and reduced complexity. Another reason for doing so would have been to leave the additional scales unused for displaying other information simultaneously with the dive/time information, such as heart rate information (figure 9b.)

16. With respect to claim 39 Plancon and Germinquet teach the watch according to claim 23, wherein in said second operating mode, said processing means are arranged for generating signals to be sent to said motor means so that said first analogue display member displays the value of said variable substantially in real time (column 22 lines 37-54 discusses an alarm function for indicating that a current measurement for the heart rate is outside a defined range, thus entailing that the second operation mode indicates information in real time.)

17. With respect to claim 41 Plancon and Germinquet teach the watch according to claim 23, wherein said electronic circuits are arranged for periodically storing said measured values in said second operating mode (column 17 line 27-30 states wherein the stored data correlates to predefined increments. More generally, the discrete and non-continuous nature of electronic memories such as 102 and 104 figure 4 entails that the stored data is inherently stored periodically and not continuously.)

18. With respect to claim 42 Plancon and Germinquet teach the watch according to claim 41, wherein said electronic circuits are arranged for altering the storage interval of said measured values as a function of the actual duration of said acquisition of the value

of the physical magnitude (the interval of duration for storing data is inherently correlated to the amount of time spent recording the data.)

19. With respect to claim 43 Plancon and Germinquet teach the watch according to claim 23, wherein the watch further includes a liquid crystal display (column 16 lines 44-58 and figure 8d) for displaying complementary information to indications provided by said at least two analogue display means.

20. With respect to claim 32 Plancon and Germinquet teach the watch according to claim 31.

Plancon does not teach further including means for automatically activating said second operating mode from said time mode in response to immersion of the device in water. Germinquet teaches a dive watch for tracking diving information. Germinquet teaches automatically starting a diving operation upon detection of an immersion of the device in water (paragraph 39.)

At the time of the invention it would have been obvious to one skilled in the art to configure Plancon's device to automatically activate a second mode in response to immersion of the device in water as taught by Germinquet. The reason for doing so would be time enable automatic timing as taught by Germinquet.

21. With respect to claim 40 Plancon and Germinquet teach the watch according to claim 23.

Plancon does not teach wherein in said historic mode, said electronic circuits are capable of operating said motor means so that the display of the value of said variable as a function of time is performed over a predefined maximum period of time, so that when actual duration of said acquisition of the value of the physical magnitude is greater than said predefined period of time, the value of said variable as a function of time is displayed in an accelerated manner.

Germinquet teaches providing a historic display in an accelerated fashion (paragraph 21.) Germinquet teaches doing so for safety reasons (paragraph 73.)

At the time of the invention it would have been obvious to one skilled in the art to configure Plancon's device to be capable of accelerated playback of the historic display mode when the duration of the historic data is large, as taught by Germinquet. The reason for doing so would be to allow a user (such as a doctor) to quickly review the information, thus achieving safety considerations as taught by Germinquet.

Response to Arguments

22. Applicant's arguments with respect to claims 23, 27-31, 33-39, and 41-43 have been considered but are moot in view of the new ground(s) of rejection.
23. Applicant's arguments with regard to claims 25, 32, and 40 filed 2/29/2008 remain pertinent to the new grounds of rejection and are addressed herein.
24. Applicant states:

With respect to claim 25, the Examiner asserts that Plancon discloses that the analogue display members remain superposed as shown in Figure 9a. However Figure 9a shows the display

members merely mounted on the same axis. Applicant respectfully asserts that the word "superposed" in claim 25 is intended to mean not only that the first and second analogue display members are mounted on the same axis, but also that the display members point in the same direction. As described at the top of page 13 of the specification "In order to facilitate reading, minute hand 11 is preferably operated such that it remains superposed on hour hand 10 when watch 30 is in the simple altimeter function." The advantage of having the display members remain superposed is that by having the display members both point in the same direction, the risk of misreading the displayed data is reduced.

This argument is not persuasive. Applicant is narrowly interpreting the claim language. The term "superposed" is defined as "to place above or upon something else." The hands are arranged coaxially and thus at least one hand is placed above another. Generally speaking cooperatively moving hands are well-known. For instance Meis (US 6842403) teaches a chronograph hand mechanism wherein the chronographic hands move in unison. Moreover, as currently claims the "superposed" hands are not required to be the same as the first and second hands.

25. Applicant states:

In the present case, the Examiner has failed to establish a prima facie case of obviousness against the instant claims 32 and 40 because neither Plancon nor Germinquet teach or suggest each and every element of the claimed invention. For example, the Examiner asserts that Plancon teaches the elements of claims 32 and 40 with the exception of means for automatically activating the second operating mode in response to immersion of the watch in water and displaying the value of a variable as a function of time in an accelerated manner when the duration of the acquisition value is greater than a predefined period of time. However, Applicant asserts that for the reasons discussed above, Plancon does not disclose the elements of claims 32 and 40 even with the exceptions outlined. Again, Applicant asserts that Plancon does not

disclose using the same analogue display member to indicate time in a first mode and the value of a variable in another mode. Thus, Applicant asserts that claims 32 and 40 also contain allowable subject matter.

This argument is not persuasive. The new limitations of the claims are taught by Germinquet.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN KAYES whose telephone number is (571) 272-8931. The examiner can normally be reached on 11:00am to 9:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on (571) 272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Felix O. Figueroa/
Primary Examiner, Art Unit 2833

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4/14/2008